



S I G N

PROPOSED REVIEW OF SIGN GUIDELINE  
CONSULTATION SUMMARY

Title of guideline	SIGN 95 Management of Chronic Heart Failure
Date of publication	February 2007
SIGN summary of the scoping search	<p><b>Guidelines</b></p> <p>American College of Cardiology/American Heart Association Task Force on Practice Guidelines, American Association for Thoracic Surgery, Society of Thoracic Surgeons. <b>ACC/AHA/HRS 2008 Guidelines for Device-Based Therapy of Cardiac Rhythm Abnormalities: a report of the American College of Cardiology/American Heart Association Task Force</b> [trunc]. J Am Coll Cardiol 2008 May 27;51(21):e1-62. <a href="http://www.guideline.gov/content.aspx?id=12590&amp;search=%22Heart+failure%22">http://www.guideline.gov/content.aspx?id=12590&amp;search=%22Heart+failure%22</a></p> <p>American College of Cardiology, American Heart Association Task Force on Practice Guidelines (writing Committee, American Society of Echocardiography, American Society of Nuclear Cardiology, Heart Rhythm Society, Society of Cardiovascular Anesthesiologists, Society for Cardiovascular Angiography and Interventions, Society for Vascular Medicine and Biology, Society for Vascular Surgery. <b>ACC/AHA 2007 guidelines on perioperative cardiovascular evaluation and care for noncardiac surgery.</b> J Am Coll Cardiol 2007 Oct 23;50(17):e159-241. <a href="http://www.guideline.gov/content.aspx?id=11510&amp;search=%22Heart+failure%22">http://www.guideline.gov/content.aspx?id=11510&amp;search=%22Heart+failure%22</a></p> <p>American Heart Association, American College of Cardiology, European Society of Cardiology. <b>The role of endomyocardial biopsy in the management of cardiovascular disease: a scientific statement from the American Heart Association, the American College of Cardiology, and the European Society of Cardiology.</b> Circulation 2007 Nov 6;116(19):2216-33. <a href="http://circ.ahajournals.org/cgi/content/full/116/19/2216">http://circ.ahajournals.org/cgi/content/full/116/19/2216</a></p> <p>American Dietetic Association (ADA). <b>ADA heart failure: evidence-based nutrition practice guideline.</b> Chicago (IL): American Dietetic Association (ADA); 2008. <a href="http://guidelines.gov/content.aspx?id=12988">http://guidelines.gov/content.aspx?id=12988</a></p> <p>CKS. <b>Heart failure - chronic.</b> Last revised 2009. <a href="http://www.cks.nhs.uk/heart_failure_chronic#-375373">http://www.cks.nhs.uk/heart_failure_chronic#-375373</a></p> <p>European Society of Cardiology. <b>ESC guidelines for the diagnosis and treatment of acute and chronic heart failure 2008.</b> Eur Heart J 2008 Oct;29(19):2388-442. <a href="http://eurheartj.oxfordjournals.org/content/29/19/2388.long">http://eurheartj.oxfordjournals.org/content/29/19/2388.long</a></p> <p>Guidelines Advisory Committee at the Centre for Effective Practice (Canada). <b>Congestive heart failure (CHF): Diagnosis of heart failure.</b> 2007 (due for review 2009). <a href="http://www.gacguidelines.ca/site/GAC_Guidelines/assets/pdf/CHF07_Diagnosis_Summary.pdf">http://www.gacguidelines.ca/site/GAC_Guidelines/assets/pdf/CHF07_Diagnosis_Summary.pdf</a></p>

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Main conclusions from new evidence

Diagnosis & investigation

- BNP testing should be recommended over electrocardiography for the diagnosis of heart failure in primary care and that some patients should be referred straight for echocardiography without undergoing

any preliminary investigation

- BNP-guided therapy reduced all-cause mortality, especially in patients younger than 75 years.
- Limited evidence to support use of BNP measurement for diagnosis of cardiac dysfunction or heart failure in people aged 75 years or over in the general population
- Major uncertainty of cost-effectiveness of use of BNP assays in the non-hospital setting.

#### Behaviour modification

- current evidence is insufficient to recommend CBT as a treatment for depressive symptoms in patients with cardiovascular illness
- home-based exercise increased exercise capacity safely, but did not improve quality of life in patients with chronic heart failure

#### Interventional procedures

- Cardiac resynchronisation therapy devices were more cost-effective than optimal pharmaceutical therapy and effectively reduced mortality and hospitalisations and improved health-related quality of life in this population of heart failure patients.
- (CRT) produced improvements from baseline in all outcomes for heart failure patients with narrow QRS complex
- The incremental benefit of CRT plus ICD over CRT alone in patients with LVSD remains uncertain.
- Results from single RCTs do not provide firm evidence of the clinical effectiveness of enhanced external counterpulsation in the treatment of heart failure.
- Exercise does not increase the risk of all-cause mortality and may reduce heart failure-related hospital admissions. Exercise training may offer important improvements in patients' health-related quality of life.
- Aerobic training, but not strength training combined with aerobic training, showed benefits on left ventricular remodeling in patients with clinically stable heart failure

#### Pharmacological treatment

- ACE inhibitors can improve rates of mortality and myocardial infarctions in patients with stable ischaemic heart disease and preserve left ventricular function. Combination therapy was no better than ACE inhibitor therapy alone, and can increase harms
- Angiotensin II receptor blockers did not show a beneficial effect on mortality when used in combination with ACE-I or when compared with ACE-I alone, but may have led to reductions in hospital admissions
- Beta-blocker therapy does not impair quality of life for patients with chronic heart failure who are receiving optimal standard medication
- Observational studies confirm the effectiveness of angiotensin-converting enzyme inhibitors and beta-blockers in heart failure patients among groups normally excluded from randomised controlled trials
- The magnitude of heart rate reduction was statistically significantly associated with the survival benefit of beta-blockers in heart failure, but the dose of beta-blocker was not.
- Aldosterone blockers (spironolactone, eplerenone or canrenoate) given to selected people with heart failure or after acute myocardial infarction reduced the risk of death.
- Treatment with aldosterone antagonists such as eplerenone and spironolactone are likely to be highly cost-effective uses of NHS resources for the management of postmyocardial infarction heart failure
- Hawthorn extract has significant benefits, compared with placebo, as an adjunctive treatment for patients with chronic heart failure

	<p>Models of care</p> <ul style="list-style-type: none"> <li>• Remote monitoring was associated with a lower rate of hospitalisation due to CHF and with decreased all-cause mortality.</li> <li>• Pharmacist care greatly reduces the risk of all-cause and HF hospitalizations</li> <li>• Non-pharmacological interventions for heart failure, such as nurse-led education and management programs, reduced hospitalisations and all-cause mortality. Interventions delivered face-to-face were particularly effective.</li> <li>• Patient outcomes can be improved with optimized transition of care coordination between the inpatient settings to home care, and a combination of interventions that increase access to providers</li> </ul>
New areas that could be added to the guideline	<p>Hawthorn extract for treating chronic heart failure  Eplerone in the treatment of HF with mild symptoms (NEJM 2011)  Ivabradine in HF (Lancet 2010)  Cardiac resynchronisation in mild moderate HF (NEJM 2010)</p>
Summary of the recommendations that could be updated	<p>(B) BNP and / or an ECG should be recorded to indicate the need for echocardiography in patients with suspected heart failure</p> <p>Section: 2.1.4</p>

Please answer the following questions as fully as possible:

Specialties:	Cardiology (3), Pharmacy (1), Psychology (1), Voluntary sector (1)
1(a) Is there still a requirement for an evidence-based guideline on this topic?	Yes
1(b) If no, should the guideline be withdrawn?	N/A
2(a) Based on the information given above, and your own clinical judgement, does the guideline require revision in the light of new evidence? <i>Please give details.</i>	<p>Section 2.1.4: The role of BNP should be further clarified.  Section 3: Patient self management should be reviewed  Section 3.3/5.1.4: The role of exercise should be further strengthened  Section 4: Pharmacological therapy: There have been substantial developments in the evidence for eplerenone and ivabradine. The indications for angiotensin receptor blockers have changed due to the change in evidence for eplerenone. Some new evidence for Fe in heart failure.  Section 4: Avoid recommendations based on unlicensed products.  Section 4.4: The evidence in mild heart failure should be reviewed  Section 5.1.1: Cardiac resynchronisation therapy should be reviewed.  Section 5.1.2: The role of implantable defibrillator therapy in heart failure needs to be clearly stated – whether as ‘stand alone’ treatment or in conjunction with CRT pacing.  Section 5.1.5: Revascularisation  Section 5.1.9: Left ventricular assist device therapy: the evidence for this therapy has developed with the publication of the largest RCT yet demonstrating benefit.  Section 6: Update on new evidence  Section 7: Palliative Care</p>
2(b) If no, is there a need to scope for new evidence on a yearly basis?	
2(c) Do you agree with the assessment of the impact of the new evidence and its likely effect on recommendations?	<p>Yes although the report focuses on reviews and meta analysis but misses three key new papers: EMPHASIS-HF study from Zannad in the NEJM, and RAFT study and SHIFT study on ivabradine published as two papers in the Lancet.</p>

2(d) If yes, please suggest clinical questions that could be addressed in the revision?	
<p>What is the role of ICD therapy, +/- CRT in patients with heart failure?</p> <p>Can existing models of care support heart failure patients who have HFPEF?</p> <p>Which patients with heart failure should receive eplerenone?</p> <p>Which patients with heart failure should receive ivabradine?</p> <p>Which patients with heart failure should receive Fe?</p> <p>Which patients with heart failure should undergo coronary artery bypass grafting?</p> <p>Which patients with heart failure should receive left ventricular assist devices?</p>	
3(a) Please list any additions to the remit of the guideline that you think would be beneficial	
<p>Investigation and management of anaemia in HF</p> <p>Supporting patients with advanced heart failure – those requiring LVADs etc</p> <p>Evidence for psychological support</p> <p>Management of Non-LVSD patients</p>	
3(b) Please list any sections of the guideline that are no longer required	
Many sections could be shortened.	
4 Please tick your preferred option for reviewing this guideline	
a. there is no new evidence that will affect existing recommendations and the guideline should not be reviewed at this time	
b. some recommendations will change in the light of the new evidence and elements of the guideline should be reviewed	✓

5 SIGN COUNCIL			Date: 11/11/2011
<b>Revalidate</b>	<b>Refresh</b>	<b>Revise</b>	<b>Remove</b>
		✓	